FTD-ID(RS)T-0631-85

FOREIGN TECHNOLOGY DIVISION

USING DUST AS A SERVANT OF WAR

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EDITED TRANSLATION

FTD-ID(RS)T-0631-85 22 August 1985

MICROFICHE NR: FTD-85-C-000727

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English pages: 4

Source: Bingqi zhishi, Nr. 6, 1984, pp. 3; 34

Country of origin: China
Translated by: SCITRAN
F33657-84-D-0165
Requester: FTD/TQTR

Accession For	
NTIS GRA&I	X
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

PREPARED BY:

TRANSLATION DIVISION
FOREIGN TECHNOLOGY DIVISION
WP-AFB, OHIO.

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Using Dust as a Servant of War

by Na JiCong

Clouds of dust particles flying upwards (idiom), contaminating the environment; clouds of dust particles flying upwards, causing people to be unable to open their eyes (idiom) and reducing the distance from which one can see effectively. When talking about dust, people immediately think of sweeping with a broom or vacuum cleaner, trying to clean it (the dust, in context) up. After all, is there anyone who likes dust?

Of course, this article is military in nature. On the battlefield, flying clouds of dust can get in the enemy's eyes, it can be used to conceal yourself, and it can always be used to help one flee from death. Throughout history, there are examples too numerous to mention of the use of dust to conceal oneself, one's movements or retreat, or in the attack. Armored units often make use of dust clouds, to make it more difficult for attacking enemy, or to serve as a cover or screen to allow for protection and concealment, and it can be used when making one's getway.

All modern tank units are equipped with an apparatus that is capable of making or producing smoke. Smoke clouds are much more effective than dust clouds. However, regardless of whether a smoke round is fired from alaucher tube at the front top of the vehicle, or created using the exhaust system at the rear of the vehicle, both systems are located at a fixed point. There are limitations to firing rounds from the front of the vehicle, and the system in the rear of the vehicle uses up fuel. In order to solve these problems, an intriguing and clever idea of using dust to create a screen was proposed..

All it takes to make a dust screen is a crusher or pulverizer to smash dirt and pebbles into very tiny particles. A sprayer is used to disseminate these particles into the atmosphere. This solves the problem of finding the resources for making a screen (of dust, in context), since dirt is found everywhere and is an inexhaustable resource sic . In order to allow the dust particles to remain aloft in the atmosphere for extended periods of time, the particles are given an electric charge. When this is done, the particles descend from the atmosphere very slowly. All that is required is a pulverizer rated at about 10 horsepower and a charger apparatus attached to it.

As a tank moves forward at a speed of approximately 10 kilometers per hour, it is possible for it to create at it's front a 110 meter wide by 10 meter tall "dust wall", obstructing all types of optical sighting and observation equipment and apparatus.

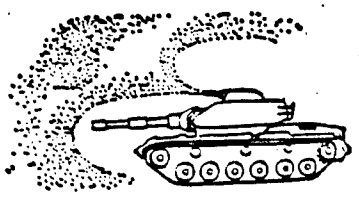

Figure. Dust screen created to conceal a tank.

In fact, it even has a detrimental effect on infrared observation equipment. Tests conducted in regions of mo: ure and in wetlands using the exhaust system as a drier before crushing the soil also allowed dust to be created. Usually, tanks have over a thousand horsepower, and the rear (pulverizer/charger system, in context) might use up 10 horsepower, so the effects are insiginificiant. Furthermore, it's use is not limited to the aforementioned. It can be used in crucial situtations where time is critical. Economically speaking, it requires approximately 100 + kilograms of dirt an hour to produce dust, and in fact actual figures are even lower for example, on the dusty plains and plateaus, these figures are might even be considered exorbitant since a pulverizer and drier is not required. To be used the particles may be directly charged and disseminated.

> The flow of dust can also be used to carry toxic chemical contaminants instead of just being used as a stream of falling particles. Biological and radiological contaminants and agents are also a possibility for use.

Upon discovery of the occurance of chemical attack, first we could cover the contaminated materials or personnel with the dust particles and let these dust particles absorb the contaminants. Of course this can only be done externally.

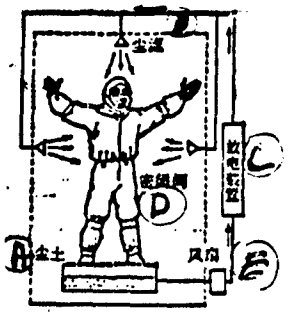

Fig. 2. Using dust to conduct personnel "cleaning" and "decontamination".

Key: a. dust, b. dust flow, c. charger device, d. airtight space, e. air filtration.

This absorption process for toxic contaminants precedes the use of water for cleansing, allowing the dust to absorb the contamination and the water to remove what is left over (sic). At the same time, in another light, it provides an alternative first measure to decontamination personnel.

Layout, Graphics: Qiang ChanSuo Ran Guanshi

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